

d. **Remarks**

Rejections under 35 U.S.C. 102

With respect to independent claims 1 and 10, the anticipation rejections are moot
5 in light of the amendments.

The Office Action rejects claims 5 as anticipated by U.S. Patent 6,134,003 of
Tearney et al (Herein "Tearney").

With respect to independent claim 5, the Office Action states "[a]s to claim 5,
Tearney does not disclose an integral outer optical cladding layer or the GRIN fiber-size
10 lens (see Figure 7B)". O.A. page 5, lines 1-2.

Rather than a GRIN fiber-size lens without an integral outer optical cladding layer
as recited in claim 5, Tearney's Figure 7B discloses an optical system (54) attached to an
end of an endoscopic unit (34). Nowhere, does Tearney state that the optical system (54)
can be a GRIN fiber-size lens without an integral cladding. Instead, Tearney states that
15 the optical system (54) may include a component that is GRIN lens. Col. 9, lines 5-6, 9-
13. Figure 7B does not show the "component" and thus, does not teach or suggest that
said component GRIN lens is without an integral cladding. Thus, Tearney does not teach
a "GRIN lens without an integral outer cladding" as recited in claim 5 and does not
anticipate independent claim 5.

Rejections under 35 U.S.C. 103

The Office Action rejects original dependent claims 2 - 4 as obvious over
Tearney. Original claims 2 and 3 have been re-presented as independent claims 1 and 14.

A prima facie case of obviousness must include a prior art teaching of each
25 feature recited in the claims. Rather than a prior art reference teaching that teaches the
features of original claims 2 - 4, the Office Action states "[a]s to claims 2-4, various focal
properties and frequency ranges for GRIN lens are notoriously well known in the art." O.
A., page 4, before last paragraph. Applicants traverse this assertion of the Office Action
and do not admit that the limitations recited in original claims 3 and 2, which are now in
30 re-presented as independent claims 1 and 14, were known in the prior art. With respect to
such assertions, the Court of Customs and Patent Appeals has stated:

Assertions of technical facts in areas of esoteric technology must always be supported by citation to some reference work recognized as standard in the pertinent art and the appellant given, in the Patent Office, the opportunity to challenge the correctness of the assertion or the notoriety or repute of the cited reference.... Allegations concerning specific "knowledge" of the prior art, which might be peculiar to a particular art should also be supported and the appellant given the opportunity to make a challenge.

In re Ahlert and Kruger, 165 U.S.P.Q. 418, 420-421 (C.C.P.A.) (underlining added) (attached); see also M.P.E.P. 2144.03.

The recitations of original claims 2-4 are technical features of esoteric technology in the spirit of the in re Ahlert Court. Applicants do not admit that these features were known in the art. The Office Action admits that Tearney does not teach GRIN lenses with the limitations of original claims 2-4. O.A., page 4, before last par. Furthermore, the conventional GRIN lenses of U.S. Patent No. 4,701,011 do not have the features recited in original claims 2 – 4. See e.g., Specification, page 4, lines 23-29. Thus, pending independent claims 1, 10, and 14 recite features not taught by the prior art. The absence of a reference teaching these recited features makes the prima facie obviousness case for pending independent claims 1, 10, and 14 deficient. For this reason, pending claims 1, 10, and 14 are non-obvious over Tearney.

Applicants note that examples of new GRIN lenses with features of pending independent claims 1, 10, and 14 are discussed between page 4, line 30, and page 5, line 29 of the present specification. These new GRIN lenses can produce advantageous properties in systems with an endoscopic probe as described, e.g., between page 5, line 29, and page 6, line 3 of the specification.

Pending dependent claims 2, 4, and 13 are non-obvious over Tearney for reasons similar to those recited above. In particular, Tearney does not teach GRIN lenses having the features recited in these claims.

Pending dependent claim 15 is non-obvious over Tearney for reasons similar to those recited above for the novelty of pending claim 5. In particular, Tearney does not teach GRIN lenses having an “an integral outer optical cladding layer”.

Dependent Claims

Dependent claims 2, 4-9, 11-13 and 15-18 are also patentable by their dependence on novel and non-obvious base independent claims.

Conclusion

For the above reasons, Applicants respectfully request allowance of pending claims 1-2 and 4-18.

No fee is believed due.

In the event of any non-payment or improper payment of a required fee, the Commissioner is authorized to charge or to credit **Lucent Technologies Deposit Account No. 12-2325** to correct the error.

Respectfully,



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us requires a reversal of a judgment which is fully justified because the subject matter of the patent was obvious.

The judgment of the district court will be affirmed.

Court of Customs and Patent Appeals

In re **AHLERT AND KRUGER**

No. 8232

Decided Apr. 30, 1970

PATENTS

1. Evidence — Judicial notice (§36.20)

Patent Office appellate tribunals, where it is found necessary, may take notice of facts beyond the record which, while not generally notorious, are capable of such instant and unquestionable demonstration as to defy dispute; however, court construes rule narrowly and regards facts found in such manner with an eye toward narrowing scope of conclusions drawn therefrom; assertions of technical facts in areas of esoteric technology must always be supported by citation to some reference work recognized as standard in the pertinent art and applicant given, in the Patent Office, the opportunity to challenge correctness of assertion or notoriety or repute of cited reference; allegations concerning specific "knowledge" of prior art, which might be peculiar to a particular art, should also be supported and applicant similarly given opportunity to make a challenge; where applicant fails to challenge a fact judicially noticed and it is clear that he was amply apprised of such finding so as to have opportunity to make such challenge, Board's finding is considered conclusive by court.

2. Board of Appeals — In general (§19.05)

Evidence — Judicial notice (§36.20)

Pleading and practice in Patent Office — Rejections (§54.7)

Manner in which Board treated claims, combining disclosures of references with new facts judicially noticed, amounted to new ground of rejection; use of reference work and facts taken from it contravened Rule 196; calling the facts "judicially noticed" does not change their effect; however, grounds of rejection are clear; applicants were not denied any procedural right accorded them by Rule 196(b); therefore, since

applicants have raised no issue as to this point, court treats rejections as court considers them to have been made by Board.

3. Board of Appeals — In general (§19.05)

Evidence — Judicial notice (§36.20)

Pleading and practice in Patent Office — Rejections (§54.7)

Court takes judicial notice that it is not uncommon for Board to cite new references, in which case a new ground of rejection is always stated.

4. Patentability — Invention — In general (§51.501)

It does not immediately follow that, because method is obvious, a particular means for carrying out method is also obvious.

Particular patents—Rail Welds

Ahlert and Kruger, Method and Apparatus for the Heat Treatment of Rail Welds, claims 1 to 11 of application refused.

Appeal from Board of Appeals of the Patent Office.

Application for patent of Wilhelm Ahlert and Ernst Kruger, Serial No. 426,838, filed Jan. 21, 1965; Patent Office Group 340. From decision rejecting claims 1 to 11, applicants appeal. Affirmed.

BRYAN & BUTRUM, ROY W. BUTRUM, and JAMES E. BRYAN, all of Washington, D. C., for appellants.

JOSEPH SCHIMMEL (JACK E. ARMORE of counsel) for Commissioner of Patents.

Before **RICH**, Acting Chief Judge, **ALMOND**, **BALDWIN**, and **LANE**, Associate Judges, and **RAO**, Chief Judge, United States Customs Court, sitting by designation.

BALDWIN, Judge.

This appeal is from the decision of the Patent Office Board of Appeals which affirmed the rejection of all claims in appellants' application¹ as unpatentable under 35 U.S.C. 103.

The Invention

The application discloses a technique for controlling the rate of cooling of a weld be-

¹ Serial No. 426,838, filed January 21, 1965, entitled "Method and Apparatus for the Heat Treatment of Rail Welds."

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tween two sections of railroad rail and the apparatus for accomplishing the method "without creating any disturbance in the railroad traffic" and "independently of the prevailing weather conditions." The controlled heat treatment provided is alleged to result in a tough, crack-free weld having reduced internal stresses.

Claims 1-6 are directed to the method, claim 1 being representative:

1. A method for the heat treatment of a rail weld while the rail is in service

which comprises directing at least one flame toward each side of the rail over at least a portion of a zone between the rail foot and the rail head only, and adjusting the intensity of the flames and the burning time thereof in accordance with the heat treatment desired.

A preferred embodiment of the apparatus designed to carry out the disclosed technique is shown in the application drawing, figure 3 of which is reproduced below for illustration:

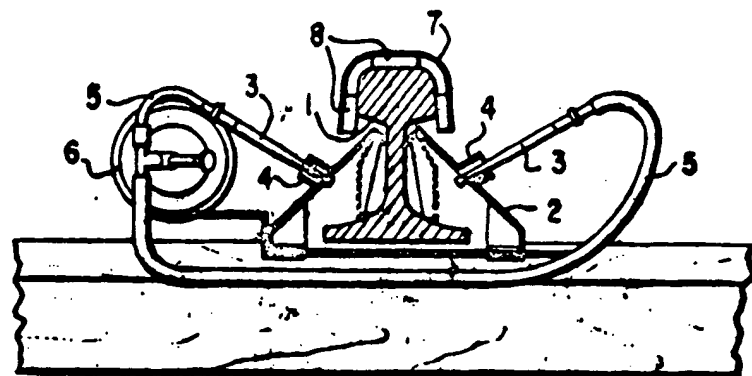


FIG. 3

The view is of a cross-section through the apparatus and a rail. As described by appellants [with numbering and explanation added by us for convenience], the apparatus

includes a profile-free hood [2] which may be in two or more parts and which encloses the rail foot or base and the rail web [the central portion, between the rail foot or base and the top or head] to a point below the rail head, and which also encloses the rail over a portion of the length thereof. One or more burners [3] are mounted in the hood on each side of the rail.

The apparatus advantageously includes a removable head cover or hood [7] which envelops the rail head and extends over a portion of the length thereof * * *. [W]arm air and gases rising from the heating chamber are absorbed by the hood, guided around the rail head, and laterally discharged after giving off their heat.

Claims 7-11 are the apparatus claims, the broadest of which, claim 7 states:

7. An apparatus for use in the heat treatment of a rail weld which comprises a hood adapted to enclose only the foot and web of a rail, and at least one burner mounted in the hood on each side of the rail.

Claim 9 provides that the hood be made in two parts, and claim 8 includes the removable cover. Claims 10 and 11 recite means for adjusting the burning time and intensity of the flames emitted by the burners.

The Rejection

The examiner finally rejected all of the claims as unpatentable under 35 U.S.C. 103 over a patent to Ronay.² This reference discloses a portable furnace, made in sections in order to fully enclose two members ("such as pipe, tubing, bars, rails, etc.") (Ital. ours). to be butt welded together while providing the heat necessary for welding. The heating element, or muffle, of the furnace is made of combustible material. The supply of gases to the muffle may be controlled in order to regulate the rate of combustion and, thereby, the intensity of the heat and the burning time. It was considered to be obvious "[i]n using the apparatus of Ronay" to enclose and heat only portions of the work piece. In the examiner's Answer, reference was made to a patent to Van Swaal,³ which discloses apparatus, in a shape similar to

²U. S. Patent 3,074,704, issued January 22, 1963.

³U. S. Patent 2,882,191, issued April 14, 1959.

appellant's head cover, with flame providing means attached thereto for flame treating rail heads in order to harden the rail surface. The reference was cited as an "example of heating only a portion of a rail".

The board found "no reversible error in the conclusion of the examiner that the claims are unpatentable over the references." However, in doing so, it was found necessary to elevate Van Swaal to the status of a reference fully relied upon to support the rejection and to take "judicial notice" of certain additional facts. Breaking the claimed method down into separate elements, the board first took judicial notice of the fact "that it is common practice to postheat a weld after the welding operation is completed" and held that "to apply the heat to heat treat a weld does not distinguish patentably over Ronay, who applies heat to weld the parts together" or Van Swaal, who "shows applying heat to a rail to heat treat the rail." It was further stated "that since Van Swaal shows directing the heat over a particular portion of a rail, it would be obvious to one skilled in the art to direct the flame over any desired portion of a rail." Finally, judicial notice was taken "of the fact that it is old to adjust intensity of a flame in accordance with the heat requirements."

With regard to the apparatus claims, the board relied on Van Swaal in deciding that "to enclose a particular part of a rail and to direct heat thereto is without patentable significance." Further noting that the "removable cover" limitation of claim 8 was "without patentable significance" and taking judicial notice of "the fact that it is common practice to provide a weld with a cover during postheating," and incorporating "reasons pointed out in connection with claim 1," the board sustained the rejection of the claims drawn to the apparatus.

Opinion

Appellants' first argument on appeal emphasizes "[t]wo basic concepts of the present invention," the first being that the claimed invention "relates to an arrangement wherein the rails of a railway track are treated *while in service*, the second being "that *only the zone between the rail foot and the rail head is heat treated*" (emphasis appellants'). It is urged that none of the references relied upon shows or suggests these two "fundamental features."

Appellant also contests the conclusions drawn by the Board of Appeals from the facts judicially noticed and, in addition, attacks the propriety of the board's taking such judicial notice, urging that the facts

are "not so notorious and well known that any court would be justified in taking judicial notice thereof."

The solicitor counters appellants' first argument by maintaining that the first concept was, in fact, considered when it was held obvious by the examiner, albeit without specific support: "to heat a rail while in service by merely enclosing a portion of the rail that has no vehicle thereon" [Sic] He alternatively asserts that, given the knowledge judicially noticed by the board,

that "rail blankets" may be employed to provide a cover when postheating welds * * *, it would require no stretch of imagination beyond the skill of the art to permit the passage of trains thereover with damage limited only to the cover * * *

The second concept, the solicitor urges, which calls for the selective heating of only the rail web, is neither expressly disclosed nor found as a specific limitation in the claims. We are inclined to agree that appellants' arguments in this regard are not convincing of reversible error below.

[1] With regard to the attack on the "judicial notice" by the board we must also agree with the solicitor's assertion that there is no real dispute as to the facts of which the board took notice. As to the propriety of the board's taking such notice at all, this court has already previously determined that the Patent Office appellate tribunals, where it is found necessary, may take notice of facts beyond the record which, while not generally notorious, are capable of such instant and unquestionable demonstration as to defy dispute. In re Knapp Monarch Co., 49 CCPA 779, 296 F.2d 230, 132 USPQ 6 (1961). This rule is not, however, as broad as it first might appear, and this court will always construe it narrowly and will regard facts found in such manner with an eye toward narrowing the scope of any conclusions to be drawn therefrom. Assertions of technical facts in areas of esoteric technology must always be supported by citation to some reference work recognized as standard in the pertinent art and the appellant given, in the Patent Office, the opportunity to challenge the correctness of the assertion or the notoriety or repute of the cited reference. Cf. In re Cofer, 53 CCPA 830, 354 F.2d 664, 148 USPQ 268 (1966), In re Borst, 52 CCPA 1398, 345 F.2d 851, 145 USPQ 554 (1965). Allegations concerning specific "knowledge" of the prior art, which might be peculiar to

a particular art should also be supported and the appellant similarly given the opportunity to make a challenge. See *In re Spormann*, 53 CCPA 1375, 363 F.2d 444, 150 USPQ 449 (1966). Where the appellant has failed to challenge a fact judicially noticed and it is clear that he has been amply apprised of such finding so as to have the opportunity to make such challenge, the board's finding will be considered conclusive by this court. *In re Perkins*, 52 CCPA 1501, 346 F.2d 981, 146 USPQ 63 (1965); *In re Knapp Monarch Co.*, supra.

These aspects of judicial notice are primarily procedural, however, designed with the purpose in mind of fully utilizing the independent and specialized technical expertise of the Patent Office examiners while balancing the applicant's rights to fair notice and an opportunity to be heard. Equally important is the question of what role the facts so found may play in the evidentiary scheme upon which a rejection of claims is based. Typically, it is found necessary to take notice of facts which may be used to supplement or clarify the teaching of a reference disclosure, perhaps to justify or explain a particular inference to be drawn from the reference teaching. The facts so noticed serve to "fill in the gaps" which might exist in the evidentiary showing made by the examiner to support a particular ground for rejection. We know of no case in which facts judicially noticed comprised the principal evidence upon which a rejection was based or were of such importance as to constitute a new ground of rejection when combined with the other evidence previously used.

[2] Looking at the facts of this case, we are constrained to hold that the manner in which the board treated the claims, combining the disclosures of the references with the new facts judicially noticed, amounted to a new ground of rejection. We consider the use of the Welding Handbook and the facts taken from it to have been in clear contravention of both the letter and the spirit of Patent Office Rule 196.⁴ Calling

⁴ The pertinent part of Rule 196 is section (b) which reads:

(b) Should the Board of Appeals have knowledge of any grounds not involved in the appeal for rejecting any appealed claim, it may include in its decision a statement to that effect with its reasons for so holding, which statement shall constitute a rejection of the claims. The appellant may submit an appropriate amendment of the claims so rejected or a showing of facts, or both, and have the matter reconsidered by

the facts "judicially noticed" does not change their effect.

Nevertheless, regardless of whether the board actually invoked the rule or not, or that the rejection is stated in somewhat archaic language, the grounds for rejection are adequately clear. It is also not evident that appellants have been denied any of the procedural rights accorded them by Rule 196(b). Compare *In re Hughes*, 52 CCPA 1355, 345 F.2d 184, 145 USPQ 467 (1965). Therefore, since appellants have raised no issue as to this point, we will treat the rejections as we consider them to have been made by the board. *In re Miller*, 51 CCPA 1135, 329 F.2d 1015, 141 USPQ 203 (1964).

As far as the method claims are concerned, we are satisfied that the board's rejection is sustainable. Considering the recited method in its entirety, we find no reason to disagree with the conclusion that what is claimed would be obvious in view of the prior art of record including the Handbook pages cited [4] by the board. While it does not immediately follow that because the *method* is obvious, a particular *means* for carrying out that method is also obvious, we must conclude that, in this case, the same reasoning and references which were employed to show the method to be obvious were also properly used to reject the apparatus claims. The decision of the Board of Appeals is *affirmed*.

RICH, J., concurs in the result.

the primary examiner. The statement shall be binding upon the primary examiner unless an amendment or showing of facts not previously of record be made which, in the opinion of the primary examiner, avoids the additional ground for rejection stated in the decision. The applicant may waive such reconsideration before the primary examiner and have the case reconsidered by the Board of Appeals upon the same record before them. Where request for such reconsideration is made the Board of Appeals shall, if necessary, render a new decision which shall include all grounds upon which a patent is refused. The applicant may waive reconsideration by the Board of Appeals and treat the decision, including the added grounds for rejection given by the Board of Appeals, as a final decision in the case.

[3] We here take judicial notice that it is not uncommon for the board itself to cite new references, in which case a new ground of rejection is always stated.